

EXHIBIT F

BF16 multiply.

BF20 outputs.

Progress (of 64) 0----- 1----- 2----- 3----- 4----- 5----- 6---

Done.

Total number of inputs checked= 4294967296(100000000)

Valid inputs don't produce NaN, Overflow (Inf), or Underflow (i.e. 0 when exact is not 0).

Number of Valid Inputs to Multiply 3275704155(c33f475b)

error range [50.00%,100.00%),	valid inputs in range 0.00% (68030),	in or above range= 0.00%
error range [20.00%, 50.00%),	valid inputs in range 0.26% (8454155),	in or above range= 0.26%
error range [10.00%, 20.00%),	valid inputs in range 0.24% (7816571),	in or above range= 0.50%
error range [5.00%, 10.00%),	valid inputs in range 0.27% (8865982),	in or above range= 0.77%
error range [2.00%, 5.00%),	valid inputs in range 0.47% (15377570),	in or above range= 1.24%
error range [1.00%, 2.00%),	valid inputs in range 4.17% (136573323),	in or above range= 5.41%
error range [0.50%, 1.00%),	valid inputs in range 52.52% (1720308401),	in or above range=57.93%
error range [0.20%, 0.50%),	valid inputs in range 35.86% (1174585586),	in or above range=93.78%
error range [0.10%, 0.20%),	valid inputs in range 4.88% (159793682),	in or above range=98.66%
error range [0.05%, 0.10%),	valid inputs in range 1.09% (35609526),	in or above range=99.75%
error range [0.02%, 0.05%),	valid inputs in range 0.23% (7481903),	in or above range=99.98%
error range [0.01%, 0.02%),	valid inputs in range 0.02% (624900),	in or above range=100.00%
error range [0.00%, 0.01%),	valid inputs in range 0.00% (144526),	in or above range=100.00%

Of all possible inputs (more than valid inputs)

NaN 0.78% (33488896 counts)

Inf 12.52% (537754624 counts)

Und 10.43% (448019621 counts)

Summary for spreadsheet. Inputs bf16. Output bf20.

5.41%

57.93%

93.78%

98.66%

99.75%

0.78%

12.52%

10.43%

ignore: nan